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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,982	03/22/2001	Herbert Ulrich	879.155USWO	1258

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LERNER AND GREENBERG, PA
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER

DEL SOLE, JOSEPH S

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,982

Applicant(s)

ULRICH, HERBERT

Examiner

Joseph S. Del Sole

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 23 is objected to because of the following informalities: a) "to be change on the fly" should be changed to --to be changed on the fly--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 23-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 23 the limitation "the measuring devices disposed in the vacuum suction bell and controlling the vacuum to allow the desired outside diameter of the pipe to be change on the fly without stopping a production process to allow production of multi-sized pipes" lacks support in the specification. In claim 29 the limitation "the pipe head having a mass gap being adjustable for setting different initial outer diameters of a pipe shaped molten extrusion" lacks support in the specification.

Art Unit: 1722

The Examiner notes that if the Applicant believes that differently worded sections of the specification set forth these limitations, then these sections should be pointed out in the response.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB (2 182 603) in view of Chapman et al (6,153,132).

GB (2 182 603) teaches a device for producing plastic pipes having an adjustable pipe head (Fig 2) connected to a vacuum suction bell (Fig 2, #29), which is equipped with a vacuum suction connection; a calibrating station (Fig 2, #19); a vacuum calibrating bath (Fig 2, #20) connected with the calibrating station; a seal means (Fig 4, #30); and control means for controlling the vacuum to achieve a desired pipe size (page 2, lines 74-80).

GB (2 182 603) fails to teach measuring instruments operating with sensing tools resting on the outside wall of the pipe.

Chapman et al teaches a pipe extrusion system having measuring instruments operating with sensing tools to control the pipe diameter, the sensing tools resting on the outside wall of the pipe for the purpose of controlling tube diameter relative to velocities accurately (col 4, lines 46-53).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of GB (2 182 603) with a resting sensor as taught by Chapman et al because it enables accurate control of tube diameter and thus it would have been obvious to utilize Chapman's diameter controlling measuring and sensing instruments/tools with the diameter control means of GB (2 182 603).

8. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brambilla (5,468,442) in view of Chapman et al (6,153,132).

Art Unit: 1722

Brambilla teaches a device for producing plastic pipes having an adjustable pipe head (Fig 2, #3) connected to a vacuum suction bell (Fig 2, the feature containing #13), which is equipped with a vacuum suction connection (Fig 2, #13); a calibrating station (Fig 2, #14); a vacuum calibrating bath (Fig 2, #2) connected with the calibrating station; a seal means (col 3, lines 26-31, the Examiner notes that a vacuum can not be achieved without some degree of a vacuum seal between the two areas of differing pressure); and control means for controlling the vacuum to achieve a desired pipe size (col 4, lines 2-17).

Brambilla fails to teach measuring instruments operating with sensing tools resting on the outside wall of the pipe.

Chapman et al teaches a pipe extrusion system having measuring instruments operating with sensing tools to control the pipe diameter, the sensing tools resting on the outside wall of the pipe for the purpose of controlling tube diameter relative to velocities accurately (col 4, lines 46-53).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Brambilla with a resting sensor as taught by Chapman et al because it enables accurate control of tube diameter and thus it would have been obvious to utilize Chapman's diameter controlling measuring and sensing instruments/tools with the diameter control means of Brambilla.

9. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brambilla (5,468,442) in view of Chapman et al (6,153,132) and further in view of Wolfl et al (5,346,379).

Brambilla and Chapman et al teaches the apparatus as discussed above including a seal means (col 3, lines 26-31, the Examiner notes that a vacuum cannot be achieved without some degree of a vacuum seal between the two areas of differing pressure).

Brambilla fails to teach measuring instruments operating with sensing tools controlling the pipe diameter in a touch-free manner by means of sound or light sensors.

Wolfl et al teaches a pipe extrusion system having measuring instruments operating with sensing tools to control the pipe diameter, the sensing tools working by means of sound sensors for the purpose of controlling wall thickness (col 7, lines 40-55 and col 2, line 48).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Brambilla with an ultrasonic sensor as taught by Wolfl et al because it enables more precise control of the final product extruded.

10. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB (2 182 603) in view of Chapman et al (6,153,132) and further in view of Wolfl et al (5,346,379).

GB (2 182 603) and Chapman et al teach the apparatus as discussed above including a seal means (Fig 4, #30).

GB (2 182 603) fails to teach measuring instruments operating with sensing tools controlling the pipe diameter in a touch-free manner by means of sound or light sensors.

Art Unit: 1722

Wolfl et al teaches a pipe extrusion system having measuring instruments operating with sensing tools to control the pipe diameter, the sensing tools working by means of sound sensors for the purpose of controlling wall thickness (col 7, lines 40-55 and col 2, line 48).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of GB (2 182 603) with an ultrasonic sensor as taught by Wolfl et al because it enables more precise control of the final product extruded.

11. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brambilla (5,468,442) in view of Chapman et al (6,153,132) and further in view of Boring (5,630,982).

Brambilla and Chapman et al teach the apparatus as discussed above including a seal means (col 3, lines 26-31, the Examiner notes that a vacuum can not be achieved without some degree of a vacuum seal between the two areas of differing pressure).

Brambilla fails to teach measuring instruments operating with sensing tools controlling the pipe diameter in a touch-free manner by means of sound or light sensors.

Boring teaches a pipe extrusion system having measuring instruments (Fig 3, #38) operating with sensing tools to control the pipe diameter, the sensing tools working by means of sound sensors for the purpose of controlling wall thickness (col 5, lines 8 - 21).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of Brambilla with an ultrasonic sensor as taught by Boring because it enables more precise control of the final product extruded.

12. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB (2 182 603) in view of Boring (5,630,982).

GB (2 182 603) and Chapman et al teach the apparatus as discussed above including a seal means (Fig 4, #30).

GB (2 182 603) fails to teach measuring instruments operating with sensing tools controlling the pipe diameter in a touch-free manner by means of sound or light sensors.

Boring teaches a pipe extrusion system having measuring instruments operating with sensing tools to control the pipe diameter, the sensing tools working by means of sound sensors for the purpose of controlling wall thickness and measuring such over the entire circumference (col 5, lines 8-21).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention to have modified the invention of GB (2 182 603) with an ultrasonic sensor as taught by Boring because it enables more precise control of the final product extruded.

Response to Arguments

13. Applicant's arguments filed 9/22/05 have been fully considered but they are not persuasive.

The Applicant argues that the combination with Chapman does not teach using measurement results for changing a vacuum condition.

The Examiner disagrees. Hill and Brambilla teach controlling pipe diameter by varying suction with control means as set forth in the rejections above. Chapman teaches measuring devices on the pipe (see feature #36) that are utilized to control pipe diameter. Since all references seek to control pipe size, it would have been obvious to combine the measurement device for pipe size means of Chapman with the vacuum control for pipe size of Hill and Brambilla.

The Applicant argues that the cited prior art fails to teach the invention of newly amended claim 29.

The Examiner notes that newly amended claim 29 cites new matter as set forth above.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1722


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Benjamin Utech, can be reached at (571) 272-1137. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).



Joseph S. Del Sole
October 6, 2005